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PROPOSED CLAIM AMENDMENTS

GROUP 1600

1. (Second time amended) A method for constructing a DNA library *in vivo*, comprising:

providing a plurality of host cells;

providing a plurality of vector molecules each having a first region and a second region;

providing a plurality of nucleic acid insert molecules, each of the plurality of nucleic acid insert molecules having a first common region which is homologous with said first region of the vector molecules, a second common region which is homologous with said second region of the vector molecules, and a library element encoding region disposed between said first common region and said second common region, wherein when the library element encoding region encodes a naturally occurring sequence, the first and second regions are not naturally found adjacent to the library element encoding region, and wherein each nucleic acid insert molecule of the plurality has a different naturally occurring sequence;

introducing at least one [a] vector molecule into each [of the] host [cells] cell of the plurality of host cells;

introducing [a] at least one nucleic acid insert molecule into each host cell of said plurality of host cells, wherein a different library element encoding region is introduced into each host cell of said plurality of host cells;

allowing homologous recombination and gap repair between a vector molecule and a nucleic acid insert molecule to occur; and

generating a plurality of vector molecules from said plurality of host cells, each vector comprising a different insert, thereby constructing a DNA library.